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Parenting Stress Management Program For Nigerian Dual Career Parents Of School Children With Autism Spectrum Disorders

Uchenna Eugenia Uzodinma[1] , Vera Victor-Aigbodion[2*], Kennedy Ololo[3] , Lasbrey Anochiwa[4] , Tobechi F. Agbanike[4] , Mary Juachi Eteng[3] , Emmanuel Chimezie Eyisi[3]

[1]Department of Educational Foundations, University of Nigeria, Nsukka, Nigeria.

[2*]Department of Educational Psychology, University of Johannesburg, South Africa.

[3]Department of Sociology, Alex Ekwueme Federal University, Ebonyi State, Nigeria.

[4]Department of Economics and Development Studies, Alex Ekwueme Federal University, Ebonyi State, Nigeria.

Abstract

The present study investigated the effect of parenting stress management program on Nigerian dual career parents of children with autism spectrum disorders. The parenting stress inventory questionnaire was used for data collection. A 8-week programme that focused on reducing parenting stress was delivered to the intervention group by the therapists. Data analyses were completed using repeated-measures ANOVA. Results revealed no significant difference between the participants in the treatment group and no-contact control group at the initial evaluation. We found significant improvement in the management of stress among dual career parents of children with autism spectrum disorders after exposure to parenting stress management program and at follow-up. Therefore, we concluded that parenting stress management program has beneficial and sustained effect in management of parenting stress among Nigerian dual career parents of children with autism spectrum disorders. The findings illustrate the need to promote parents stress management programs, coping orientation and the application of behavioral strategies with their children to help them to buffer the impact of stress.

Keyword: Autism Spectrum Disorders, Dual career parents, Parenting stress

Introduction

Parenting stress among parents of children with ASD has gained increasing attention. Parents of children with autism spectrum disorder (ASD) face a unique set of challenges when it comes to caring for their children. Parenting children with autism spectrum disorder (ASD) can be more stressful and challenging than parenting children with typical development, particularly in countries where support services are scarce. Special needs children, such as those with

autism, have more behavioral issues than generally developing children, which can cause parental stress (Kim et al., 2016). Parenting stress is a complex construct defined by Everly and Lating (2002) as a combination of behavioral, cognitive, and affective components, as well as a combination of child and parent characteristics, as well as family situational components as they relate to a person's appraisal of his or her role as a parent. Furthermore, Rao and Beidel (2009) defined parental stress as the strains and pressures felt when performing care-giving responsibilities for one's child. As a result, parenting stress is a typical occurrence that has significant negative consequences for the physical and mental health of parents of children with Autism spectrum disorder (ASD) (Kakkar and Srivastava, 2017; Kausar et al., 2018). The requirements and emotional situations of children, as well as the health qualities of parents, all contribute to the overall level of stress a parent can feel in their parenting role (Abidin, 1992). Autism spectrum disorder (ASD) is a complex neurodevelopmental disorder marked by persistent changes in communication and social interaction, as well as the presence of stereotyped patterns of behavior, activities, and interests (American Psychiatric Association, 2013). According to the Centers for Disease Control and Prevention, its prevalence has increased by fourfold in the last decade, with a rate of 1 in 59 children in the United States (Baio et al., 2018). The estimated prevalence in Spain, at 1.55 percent in preschoolers and 1.00 percent in school-aged children, is comparable to international estimates (Morales-Hidalgo et al., 2018). Children with ASD, for example, have difficulties in many areas of their lives, including social interaction, conduct, communication, and language (Bluth et al., 2013; Maskey et al., 2013). Therefore, it is challenging for children with ASD to manage their behavior, communicate, and form social relationships with their parents and other people (Al-Khalaf et al., 2014; Ede et al., 2020). Furthermore, there is no doubt that behavioral issues and socio-communication skill inadequacies are the hallmarks of ASD, contributing to severe stress in parents of these children (Miranda et al., 2019; Shepherd et al., 2018; Sim et al., 2017). Parents of children with ASD frequently reported higher levels of anxiety (Stein et al., 2011; Kuusikko-Gauffin et al., 2013; Falk et al., 2014), depression (Stein et al., 2011; Hayes and Watson, 2013; Zablotsky et al., 2013; Falk et al., 2014; Weitlauf et al., 2014), and health-related problems across the literature (Stein et al., 2011; Dykens and Lambert, 2013; Giallo et al., 2013; Fairthorne et al., 2015). Parents of children with ASD have higher levels of stress and lower levels of well-being than parents of normally developing children, according to group comparison research (Dabrowska and Pisula, 2010; Estes et al., 2013; Hayes and Watson, 2013).

Parents of children with ASD have more stress than parents of children with usual development, which reaches clinically significant levels in 77% of instances (Kiami and Goodgold, 2017; Davis and Carter, 2008; Hoffman et al., 2009; Giovagnoli et al., 2015). Furthermore, it also outperforms the stress of parents of children with various neurodevelopmental disorders, such as specific learning difficulties, intellectual disabilities, Down syndrome, cerebral palsy, externalizing behaviors, or attention deficit hyperactivity disorder, with a substantial effect size (Gupta, 2007; Hayes and Watson, 2013; Watson et al., 2013; Craig et al., 2016; Barroso et al., 2018). Because of the specific medical and educational needs of autistic children, caring for them necessitates a change in their parents' daily activities. As a result, such parents experience psychological and physical challenges such as stress

(Lovell et al., 2012; Estes et al., 2013). The child's inappropriate and unpredictable behaviors/emotional problems, the severity of the autism symptoms, and financial worries secondary to the need to spend for treatment intervention and education are all common sources of stress for parents of children with ASD (Estes et al., 2013; Ingersoll and Hambrick, 2011; Rivard et al., 2014; Sharpe and Baker, 2011; Vohra et al., 2014; Zablotsky etal., 2014; Thomas etal., 2016).

The dual-career parents' phenomenon refers to a family in which both heads of home pursue occupations while maintaining a family life together (Rapoport & Rapoport, 1969; 1971). Dual career parents are couples in which both partners are committed to furthering their careers. Rather than relying on one breadwinner, both partners are committed in their own careers. Depending on the field of employment and the compatibility of career types, this lifestyle might present both challenges and opportunities. Couples that share the same career field fall under the group of dual-career parents. Dual-career parents, on the other hand, can include persons with completely different expertise. Regardless, dual-career parents have one thing in common: each person is committed to a long-term career. Parents of children with autism experience much more stress than parents of children with typical development (Lee et al., 2009). Studies have shown that parents of children with autism spectrum disorders experience stress in parenting their children (Padden, 2017; Ayers, 2012; Hayes and Watson, 2013). There has not been much research on a parenting stress management program for Nigerian dual career parents of children with autistic spectrum disorders. The study's goal is to close this gap by using a parenting stress management program to reduce parental stress among Nigerian dual-career parents of children with autistic spectrum disorders. This study's findings contribute to a better understanding of parenting stress management programs for dual-career parents of children with ASD. This study will aid parents with ASD, special needs educators, and caregivers in developing and implementing stress-reduction and prevention strategies for stressed parents with ASD. This study also contributes to the scant information on the effects of a parental stress management program for dual-career parents of ASD children. The study hypothesized that a parenting stress management program for Nigerian dual career parents of children with autistic spectrum disorders would reduce parental stress.

Methods

Participants in this study were 60 Nigerian dual career parents of children with autism spectrum disorders and were recruited through public special schools and parental support groups in Southeast Nigeria. All parents participated in the study voluntarily. 30 parents were in the treatment group while 30 were in the non-contact control group. A power of 0.95 produced an adequate sample size of 44 for this experiment using a 3.1 version of GPower at a medium effect size of 0.25 and a 0.05 probability level. The sample size precision was confirmed using G*Power 3.1.1 (Faul et al. 2007) (Figure 1).

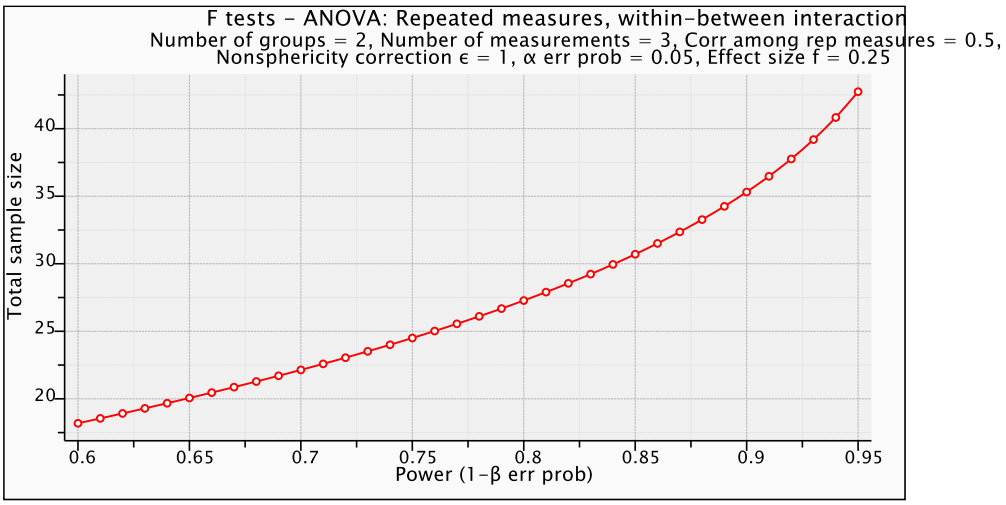

Figure 1. sample size plot.

The Parenting Stress Index – Short Form (PSI-SF; Abidin, 1995) which is a self-report measure was filled out by the parents. It contains 36 items distributed in three subscales of 12 items each, rated on a five-point Likert-type response scale (1 = strongly agree, 5 = strongly disagree). The first scale, parental distress, evaluates the distress experienced by parents due to personal factors, such as depression or conflict with a partner or life restrictions due to the demands of childrearing in their role as parents (i.e., "Since having my child, I feel that I am almost never able to do things I like to do." The second scale, parent–child dysfunctional interaction, provides information about the parents' feelings about the interactions with their child and the degree of frustration of the expectations and trust they have placed in their child (i.e., "Most times, I feel that my child does not like me and does not want to be close to me"). The third scale, difficult child, is designed to measure the parents' perceptions of their child's self-regulatory abilities (i.e., "My child seems to cry or fuss more often than most children"). The scale also provides a measure of total stress by adding up the scores on the 36 items, with a total score above 90 being clinically significant. The PSI-SF provides a total stress score from three subscales (where higher scores represent higher degrees of parenting stress): parental distress, parent-child dysfunctional interaction, and difficult child. The Cronbach's alpha internal consistency coefficients in our sample were: parental distress (α = .80), dysfunctional parent–child interaction (α = 0.81), and difficult child (α = 0.82), which are similar to other studies (Diaz-Herrero et al., 2011). It is the most widely used instrument to evaluate stress in studies on ASD; in fact, it was utilized in 75% of the studies included in a recent systematic review (Barroso et al., 2018).

The parents signed consent papers to participate in the study after being educated about the objectives, and they were fully aware that they might opt out at any time. A stress management program for parents was created. The researchers created a parenting stress management program with the goal of teaching skills for efficiently dealing with stress. The

stress management workbook by Gramling and Auerebach (1998) and the stress management book by Sahin (1981) were utilized as guides in constructing the parenting stress management program. Prior to the start of the intervention program, the researcher held a one-month (twice-week) briefing for all of the research assistants. The research assistants learned about the study's goals, assessed the parenting stress management program, and devised a strategy for delivering the intervention. During the pre-test period, parents also completed the PSI questionnaire. Direct teaching, active involvement, and assignments were part of the parenting stress management program. The program's content was separated into two sections. First, there were discussions regarding general stress; in this section, the emphasis was on providing examples and approaches to misbehaviors of children with ASD and the challenges that they generate for their parents. Second, information about parenting stress with an emphasis on children's behavioral issues was discussed by the group. The following are the discussions for the program's 12 sessions: the first through third sessions focused on introducing the program, a brief personal introduction from each participant, a discussion of expectations, and basic guidance. The fourth to sixth sessions focused on the definition of stress, stress and disease, and stress sources. The seventh through ninth sessions focused on ASD behavior management skills with the goal of lowering parents stress. The tenth session covered what ASD is, the stress that comes with raising children with ASD, how to control behavior in children with ASD, enhancing children's ability to understand others' feelings, and increasing their own self-esteem. Cognitive reconstruction, positive thinking and forgiveness, and relaxation techniques are covered in the eleventh through twelfth sessions. The intervention was eight weeks. Following the treatment concluded, there was a 2-week (4-session) follow-up, which occurred one month after the 6-week treatment period. The statistical analyses were performed with the statistical program for the Social Sciences (SPSS), version 24. The data analyses were conducted using the repeated measure ANOVA at 0.05 level of significance.

Results

Table 1. Descriptive Statistics

Time	Research groups	Mean	Std. Deviation	N
Total pretest score	Non-contact control group	124.23	14.96	30
	Treatment group	122.10	12.08	30
	Total	123.17	13.52	60
Total post-test score	Non-contact control group	121.77	12.84	30
	Treatment group	107.93	11.02	30
	Total	114.85	13.76	60
Total follow-up score	Non-contact control group	125.10	12.84	30
	Treatment group	100.80	8.31	30
	Total	112.95	16.28	60

From table 1, descriptive statistics results suggest that in the treatment group, average parental stress score decreased steadily over time: pretest mean ± std. deviation =122.10 ±12.08, post-test mean ±std. deviation = 107.93±11.02, follow-up mean ± std. deviation = 100.80±8.31. However, in the non-contact control group, average parental stress score appeared to slightly fluctuate over time: pretest mean ±std. deviation =124.23±14.96, post-test mean ±std. deviation = 121.77±12.84, follow-up mean ± std. deviation =125.10±12.84.

Table 2. Repeated ANOVA result of test of within-subjects and between-subject effects of parental stress.

Within-Subjects Effects							
	Source	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Overall	time	3543.144	2	1771.57	66.91	<.001	.54
	time * group	3689.011	2	1844.51	69.67	<.001	.55
	Error(time)	3071.178	116	26.48			
Parental distress	time	309.544	2	154.772	37.065	<.001	.390
	time * group	332.078	2	166.039	39.763	<.001	.407
	Error(time)	484.378	116	4.176			
Parent-Child Dysfunctional Interaction	time	622.711	2	311.356	39.120	<.001	.403
	time * group	701.378	2	350.689	44.062	<.001	.432
	Error(time)	923.244	116	7.959			
Difficult Child	time	319.900	2	159.950	17.674	<.001	.234
	time * group	262.300	2	131.150	14.492	<.001	.200
	Error(time)	1049.800	116	9.050			
Between-Subjects Effects							
Overall	Group	8107.02	1	8107.02	20.68	<.001	.26
	Error	22739.62	58	392.06			
Parental distress	Group	1237.689	1	1237.689	18.225	<.001	.239
	Error	3938.956	58	67.913			
Parent-Child Dysfunctional Interaction	Group	1130.006	1	1130.006	24.670	<.001	.298
	Error	2656.722	58	45.806			
Difficult child	Group	451.250	1	451.250	6.450	.014	.100
	Error	4057.700	58	69.960			

From Table 2, the result of the repeated measure ANOVA of test of within-subjects and between-subject effects of parental stress indicate that the overall main effect of time on parents' stress level was significant overall and for each of the PSI subscales [overall: F (2,116)= 66.91, p<.001, partial eta squared =.54; Parental distress: F(2,116)= 37.065, p<.001, partial eta squared =.390; Parent-Child Dysfunctional Interaction: F(2,116)= 39.120, p<.001, partial eta squared =.403; Difficult child: : F(2,116)= 17.674, p<.001, Partial eta squared = .234]. Similarly, there was a significant main effect of group on parental stress score overall and as observed in the PSI subscales [overall: F (1,58) =20.68, p<.001, partial eta squared =.26; Parental distress: F(1,26)= 18.225, p<.001, partial eta squared =.239; Parent-Child Dysfunctional Interaction: F(1,58)= 24.670, p<.001, partial eta squared =.298; Difficult child: : F(1,58)= 6.450, p =.014, partial eta squared =.100]. In addition, the Time×Group interaction was significant overall and at subscale level of the PSI [overall: F(2,116) = 69.67, p<.001, partial eta squared =.55; Parental distress: F(2,116)= 39.763, p<.001, partial eta squared =.407; Parent-Child Dysfunctional Interaction: F(2,116)= 44.062, p<.001, partial eta squared =.432; Difficult child: : F(2,116)= 14.492, p<.001, partial eta squared =.200]. These results suggest that the parental stress management program on dual-career Nigerian parents with ASD was significantly effective in reducing parental stress over time, particularly for parents in the treatment group.

Table 3. Pairwise Comparisons across time in the groups (Bonferroni).

Groups	(I) time	(J) time	Mean Difference (I-J)	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
Non-contact control group	1	2	2.467	.518	-2.017	6.951
		3	-.867	1.000	-4.611	2.878
	2	1	-2.467	.518	-6.951	2.017
		3	-3.333	.102	-7.142	.475
	3	1	.867	1.000	-2.878	4.611
		2	3.333	.102	-.475	7.142
Treatment group	1	2	14.167*	<.001	12.035	16.298
		3	21.300*	<.001	18.109	24.491
	2	1	-14.167*	<.001	-16.298	-12.035
		3	7.133*	<.001	4.894	9.372
	3	1	-21.300*	<.001	-24.491	-18.109
		2	-7.133*	<.001	-9.372	-4.894

Table 3 contains the Post-hoc analysis of the pairwise comparison across time for each research group. The results indicated that in the treatment group, parental stress were significantly reduced between pre-test/post-test and pre-test/follow-up, post-test/follow-up with p<.001 overall. However, in the non-contact control group, there was no significant different in overall parental stress across different time points as measured by the PSI.

Table 4. pair-wise comparison across groups for different time points

Time	(I) group	(J) group	Mean Difference (I-J)	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
Pretest	Control	Treatment	2.133	.212	-1.286	5.552
	Treatment	Control	-2.133	.212	-5.552	1.286
Post-test	Control	Treatment	13.833*	.000	10.021	17.645
	Treatment	Control	-13.833*	.000	-17.645	-10.021
Follow-up	Control	Treatment	24.300*	.000	20.473	28.127
	Treatment	Control	-24.300*	.000	-28.127	-20.473

Furthermore, as observed in Table 4, the between-group pairwise comparison of the parenting stress management program on Nigerian dual career parents of children with autism spectrum disorders showed that there was no significant difference in the stress level of parents between the treatment and control groups at pretest, $p = .212$. However, at post-test and follow-up there was significant difference in the stress level of parents between the treatment and control groups, with $p<.001$.

Discussion

The primary goal of this study was to determine the effect of a parental stress management program on dual-career Nigerian parents with ASD. The current study's findings are consistent with previous research. The findings are consistent with Ede et al.,(2020), who discovered significant improvements in the management of parenting stress among parents of children with autistic spectrum disorders following exposure to the intervention and at follow-up. The findings support those of Parand et al., (2010), who discovered a significant decrease in the experimental groups' depression, anxiety, and psychological distress scores, as well as a significant improvement in the mental wellbeing of mothers with autism spectrum disorders. The findings are consistent with those of Sevim (2007), who found that mothers of children with autism who participated in a stress management program experienced a significant reduction in depression. An internet-based stress management program was applied in the study of Zetterqvist et al., (2003), and stress, anxiety, and depression decreased significantly for the stress-management group, which is consistent with the study findings. The findings of the study accord with those of Ilias et al., (2008), who discovered that parenting stress among parents of special children was significantly reduced after exposure to psycho educational programs. The findings of this study are consistent with those of Domes et al. (2019), who discovered that an internet-based stress management program reduced perceived stress. The findings of Stächele et al., (2020) are consistent with the findings of this study, which show that a cognitive-behavioral internet-based stress management program improves coping abilities, sleep quality, and well-being, as well as reducing employees' perceived stress. To our knowledge, this is the first study to look into parenting stress management among Nigerian dual career parents of children with ASD. It does, however, have certain limitations. The sample included a small number of participants ,the findings must be regarded as preliminary, and more research is

needed. Furthermore, the findings are limited to Nigerian dual-career parents of ASD children, which may limit generalizability. Parent-report questionnaires were used to gather data. Although these tests have been thoroughly verified, future research should employ multi-informant evaluations to acquire more ecological measures of the variables.

The implication of this study is to gain a better understanding of how parent stress management program can reduce stress among Nigerian dual-career parents of children with ASD. It appears impossible to eliminate the stressors that Nigerian dual career parents confront when raising children with ASD. Instead, when faced with new and continuous obstacles, multiple work parents should be encouraged to management stress properly. Policies and facilities must be created to assist and relieve the stress of parents of children with ASD. Furthermore, parents of children with ASD should be provided with appropriate parenting courses and training. Parents must seek assistance from family-centered supportive services that include counseling in order to reduce their stress levels by employing effective coping skills and other resources. Interventions that include stress management, information about specific behavioral impairments, and behavior management principles within a set of components (information on autism, strategies for teaching new skills, improving social interaction and communication, service availability, and family and community responses to autism) have been shown to reduce parenting stress and improve family life. Parents should try to employ all of the coping skills in the parenting stress management program as much as possible in order to take effective responsibility for their children.

Conclusion

The current study shows that an 8-week cognitive-behavioral parenting stress management program decreases stress in dual-career parents of children with ASD. Our findings could pave the way for large-scale research into the long-term stability and clinical value of parenting stress-management intervention. This study gives dual career parents of children with ASD a better grasp of parental stress management programs. In order to assist and reduce the stress on parents of children with ASD, appropriate policies and facilities must be established. Overall, it is undoubtedly that the parents will go through stress, inadequate financial assistance, a lack of time, and emotional and physical tiredness, but stress must be managed properly. As a result of the findings of this study, it is critical to give ongoing education and counseling programs in order to enhance parents' coping and management patterns in caring for their impaired children by discussing child problems and needs as well as parents' mental health.

CORRESPONDENCE: The correspondence regarding this article should be addressed to Dr Vera Victor-Aigbodion (verav@uj.ac.za), Department of Educational Psychology, University of Johannesburg, South Africa.

References

Abidin, R. R. (1992). The determinants of parenting behavior. J. Clin. Child Psychol. 21, 407–412. doi: 10.1207/s15374424jccp2104_12

Abidin, R. R. (1995). Parenting Stress Index: Professional Manual, 3rd Edn. Odessa, FL: Psychological Assessment Resources.

Al-Khalaf, A., Dempsey, I, and Dally, K. (2014).The effect of an education program for mothers of children with autism spectrum disorder in Jordan. Int J Adv Couns., 36(2):175–87. https://doi.org/10.1007/s10447-013-9199-3.

American Psychiatric Association (2013). Diagnostic and statistical manual of mental disorders: (DSM-V), 5th Edn. Arlington, VA: American Psychiatric Publishing. doi: 10.1176/appi.books.9780890425596.

Ayers, K. (2012). Self-care: why parents of children with disabilities must nurture themselves. Retrieved from http://www.disaboom.com/childrewithdisabilities/self-care-why-parents-with-disabilities-must-nurture-themselve

Baio, J., Wiggins, L., Christensen, D. L., Maenner, M. J., Daniels, J., Warrens, Z., et al. (2018). Prevalence of autism spectrum disorder among children aged 8 years. Autism and developmental disabilities monitoring network, 11 Sites, United States, 2014. Surveill. Summa. 67, 1–23. doi: 10.15585/mmwr.ss6706a1

Barroso, N. E., Mendez, L., Graziano, P. A., and Bagner, D. M. (2018). Parenting stress through the lens of different clinical groups: a systematic review & meta-analysis. J. Abnorm. Child Psychol. 46, 449–461. doi: 10.1007/s10802-017-0313-6

Bluth, K., Roberson, P.N., Billen, R.M, and Sams, J.M. (2013).A stress model for couples parenting children with autism spectrum disorders and the introduction of a mindfulness intervention. J Fam Theory Rev. 5(3), 194–213. https://doi.org/10.1111/jftr.12015.

Craig, F., Operto, F. F., De Giacomo, A., Margari, L., Frolli, A., Conson, M., et al. (2016). Parenting stress among parents of children with neurodevelopmental disorders. Psych. Res. 242, 121–129. doi: 10.1016/j.psychres.2016.05.016

Dabrowska, A., and Pisula, E. (2010). Parenting stress and coping styles in mothers and fathers of pre-school children with autism and Down syndrome. J. Intellect. Disabil. Res. 54, 266–280. doi: 10.1111/j.1365-2788.2010.01258.x

Davis, N. O., and Carter, A. S. (2008). Parenting stress in mothers and fathers of toddlers with autism spectrum disorders: associations with child characteristics. J. Autism Dev. Disord. 38, 1278–1291. doi: 10.1007/s10803-007-0512-z

Diaz-Herrero, A., Lopez-Pina, J. A., Perez-Lopez, J., de la Nuez, A. G., and Martinez-Fuentes, M. T. (2011). Validity of the parenting stress index-short form in a sample of spanish fathers. Span. J. Psychol. 14, 990–997. doi: 10.5209/rev_SJOP.2011.v14.n2.44

Domes, G., Stächele, T., von Dawans, B., Heinrichs, M. (2019).Effects of internet-based stress management on acute cortisol stress reactivity: Preliminary evidence using the trier social stress test for groups (TSST-G). Psychoneuroendocrinology, 105, 117–22. doi: 10.1016/j.psyneuen.2018.12.001

Dykens, E. M., and Lambert, W. (2013). Trajectories of diurnal cortisol in mothers of children with autism and other developmental disabilities: relations to health and mental health. J. Autism Dev. Disord. 43, 2426–2434.

Ede, M.O., Anyanwu, J.I., Onuigbo, L.N., Ifelunni, C.O., Alabi-Oparaocha, F.C., Okenyi, E.C., Agu, M.A., Ugwuanyi, L.T., Ugwuanyi, C., Eseadi, C., Awoke, N.N., Nweze, T., and Victor-Aigbodion, V. (2020). Rational emotive family health therapy for reducing parenting stress in Families of children with autism spectrum disorders: A group randomized control study. J Ration Emot Cogn Behav Therapy, 38, 243–271.

Estes, A., Olson, E., Sullivan, K., Greenson, J., Winter, J., Dawson, G., & Munson (2013). Parenting-related stress and psychological distress in mothers of toddlers with autism spectrum disorders. Brain Dev. 35, 133–138. doi: 10.1016/j.braindev.2012.10.004

Everly, G.S and Lating, J. (2002).A personality-guided approach to the treatment of posttraumatic stress disorder. Washington, DC: American Psychological Association.

Fairthorne, J., de Klerk, N., and Leonard, H. (2015). Health of mothers of children with intellectual disability or autism spectrum disorder: a review of the literature. Med. Res. Arch. doi: 10.18103/mra.v0i3.204

Falk, N. H., Norris, K., and Quinn, M. G. (2014). The factors predicting stress, anxiety and depression in the parents of children with autism. J. Autism Dev. Disord. 44, 12. doi: 10.1007/s10803-014-2189-4

Faul, F., Erdfelder, E., Lang, A. G., and Buchner, A. (2007). G* Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. Behavior Research Methods, 39(2), 175-191.

Giallo, R., Wood, C. E., Jellett, R., and Porter, R. (2013). Fatigue, wellbeing and parental self-efficacy in mothers of children with an autism spectrum disorder. Autism 17, 465–480. doi: 10.18103/mra.v0i3.204

Giovagnoli, G., Postorino, V., Fatta, L. M., Sanges, V., De Peppo, L., Vassena, L., et al. (2015). Behavioral and emotional profile and parental stress in preschool children with autism spectrum disorder. Res. Dev. Disabil. 45-46, 411–421. doi: 10.1016/j.ridd.2015.08.006

Gramling, E. S. & Auerbach, S. M. (1998). Stres management workbook. New Jersey: Prentice-Hall, Inc.

Gupta, V. B. (2007). Comparison of parenting stress in different developmental disabilities. J. Dev. Phys. Disabil. 19, 417–425. doi: 10.1007/s10882-007-9060-x

Hayes, S. A., and Watson, S. L. (2013). The impact of parenting stress: a meta-analysis of studies comparing the experience of parenting stress in parents of children with and without autism spectrum disorder. J. Autism Dev. Disord. 43, 629–642. doi: 10.1007/s10803-012-1604-y

Hoffman, C. D., Sweeney, D. P., Hodge, D., Lopez-Wagner, M., and Looney, L. (2009). Parenting stress and closeness: mothers of typically developing children and mothers of children with autism. Focus Autism Dev. Disabil. 24, 178–187. doi: 10.1177/1088357609338715

Ilias, K., Ponnusamy, S & Normah, C. D.(2008). Parental stress in parents of special children: The effectiveness of psycho education program on parents' psychosocial well beings. Simposium, Kuala Lumpur, 18 – 19 Jun 2008 : 205 – 211

Ingersoll, B., and Hambrick, D. Z. (2011). The relationship between the broader autism phenotype, child severity, and stress and depression in parents of children with autism spectrum disorders. Res. Autism Spectr. Disord. 5, 337–344. doi: 10.1016/j.rasd.2010.04.017

Kakkar, J and Srivastava, P. (2017).Challenges and coping among parents having children with autism spectrum disorder. J Psychosoc Res.12(2), 363–71.

Kausar, N., Akram, B., Dawood, S., and Ahmad F. (2018).Development of an indigenous parental perceived stress scale for children with autism spectrum disorder. Pak J Psychol Res. 34(2), 433–56.

Kiami, S. R., and Goodgold, S. (2017). Support needs and coping strategies as predictors of stress level among mothers of children with autism spectrum disorder. Autism Res. Treat, 8685950. doi: 10.1155/2017/8685950

Kim, I., Ekas, N. V., and Hock, R. (2016). Associations between child behavior problems, family management, and depressive symptoms for mothers of children with autism spectrum disorder. Res. Autism Spectr. Disord. 26, 80–90. doi: 10.1016/j.rasd.2016.03.009

Kuusikko-Gauffin, S., Pollock-Wurman, R., Mattila, M. L., Jussila, K., Ebeling, H., Pauls, D., et al. (2013). Social anxiety in parents of high-functioning children with autism and Asperger syndrome. J. Autism Dev. Disord. 43, 521–529. doi: 10.1007/s10803-012-1581-1

Lee, G. K., Lopata, C., Volker, M. A., Thomeer, M. L., Nida, R. E., Toomey, J. A., et al. (2009). Health-related quality of life of parents of children with high-functioning autism spectrum disorders. Focus Autism Dev. Dis. 24, 227–239. doi: 10.1177/1088357609347371

Maskey, M., Warnell, F., Parr, J.R., Le Couteur, A., McConachie, H. (2013).Emotional and behavioural problems in children with autism spectrum disorder. J Autism Dev Disorder, 43(4):851–9. https://doi.org/10.1007/s10803-012-1622-9.

Miranda, A., Mira, A., Berenguer, C., Rosello, B., and Baixauli, I. (2019).Parenting stress in mothers of children with autism without intellectual disability. Mediation of behavioral problems and coping strategies. Front Psychol.10, 464.

Morales-Hidalgo, P., Roigé-Castellví, J., Hernández-Martínez, C., Voltas, N., and Canals, J. (2018). Prevalence and characteristics of autism spectrum disorder among spanish school-age children. J. Autism Dev. Disord. 48, 3176–3190. doi: 10.1007/s10803-018-3581-2

Padden, C and Jack, E. J. (2017).Stress among parents of children with and without autism spectrum disorder: A comparison involving physiological indicators and parent self-reports. Journal of Developmental and Physical Disabilities, 29(4), 567–586.doi: 10.1007/s10882-017-9547-z

Parand, A., Afrooz, G., Mansoor, M., Yekta, M.S. Besharat, M., Khooshabi, K. (2010). Developing stress management program for mothers of children with ADHD and its effectiveness on their mental health. Procedia - Social and Behavioral Sciences, 5, 1135-1139 , 5. doi:10.1016/j.sbspro.2010.07.249

Rao, P.A and Beidel, D.C. (2009).The impact of children with high-functioning autism on parental stress, sibling adjustment, and family functioning. Behav Modification, 33(4),437–51. https://doi.org/10.1177/0145445509336427.

Rivard, M., Terroux, A., Parent-Boursier, C., and Mercier, C. (2014). Determinants of stress in parents of children with autism spectrum disorders. J. Autism Dev. Disord. 44, 1609–1620. doi: 10.1007/s10803-013-2028-z

Robert, N. Rapoport (1971). Dual-career families: Progress and prospects. Institute of Family and Environmental Research, London, England. https://doi.org/10.1300/J002v01n05_01

Şahin, N. H. (1998). Stresle Başa Çıkma: Olumlu Bir Yaklaşım. Ankara: Türk Psikologlar Derneği Yayınları.

Sevim, B (2007). The effects of stress management program for mothers of children with autism. Unpublished thesis. Middle East Technical University.

Sharpe, D. L., and Baker, D. L. (2011). The financial side of autism: Private and public costs," in A Comprehensive Book on Autism Spectrum Disorders, ed M. Mohammadi (Rijeka: InTech), 275–296.

Shepherd, D, Landon, J, Taylor, S and Goedeke, S. (2018).Coping and care-related stress in parents of a child with autism spectrum disorder. Anxiety Stress Coping, 31(3), 277–90. https://doi.org/10.1080/10615806.2018.1442614.

Sim, A., Cordier, R., Vaz, S., Netto, J., and Falkmer, T. (2017).Factors associated with negative co-parenting experiences in families of a child with autism spectrum disorder. Dev Neurorehabil. 20(2), 83–91.

Stächele, T., Domes, G., Wekenborg, M., Penz, M., Kirschbaum, C and Heinrichs, M. (2020). Effects of a 6-Week Internet-based stress management program on perceived stress, subjective coping skills, and sleep quality. Front. Psychiatry 11, 463. doi: 10.3389/fpsyt.2020.00463

Stein, L. I., Foran, A. C., and Cermak, S. (2011). Occupational patterns of parents of children with autism spectrum disorder: revisiting Matuska and Christiansen's model of lifestyle balance. J. Occup. Sci. 18, 2. doi: 10.1080/14427591.2011.575762

Thomas, K. C., Williams, C. S., and Morrissey, J. P. (2016). Examination of parent insurance ratings, child expenditures, and financial burden among children with autism: a mismatch suggests new hypotheses to test. Pediatrics, 137(Suppl. 2), 86–195. doi: 10.1542/peds.2015-2851Q

Vohra, R., Madhavan, S., Sambamoorthi, U., and St Peter, C. (2014). Access to services, quality of care, and family impact for children with autism, other developmental disabilities, and other mental health conditions. Autism 18, 815–826. doi: 10.1177/1362361313512902.

Watson, S. L., Coons, K. D., and Hayes, S. A. (2013). Autism spectrum disorder and fetal alcohol spectrum disorder. Part I: a comparison of parenting stress. J. Intellect. Dev. Dis. 38, 95–104. doi: 10.3109/13668250.2013.788136

Weitlauf, A. S., Vehorn, A. C., Taylor, J. L., and Warren, Z. E. (2014). Relationship satisfaction, parenting stress, and depression in mothers of children with autism. Autism, 18, 194–198. doi: 10.1177/1362361312458039

Zablotsky, B., Anderson, C., and Law, P. (2013). The association between child autism symptomatology, maternal quality of life, and risk for depression. J. Autism Dev. Disord. 43, 1946–1955. doi: 10.1007/s10803-012-1745-z

Zetterqvist, K., Maanmies, J., Ström, L. & Anderssson, G. (2003). Randomized controlled trial of internet-based stres management. Cognitive Behaviour Therapy, 32(3), 151-160.